

REMARKS

Claims 1-15 are pending. By this Amendment, claim 1 is amended and no new claims are added.

Claim Rejection under 35 U.S.C. § 103

The Examiner rejected claims 1-12 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Roberts in view of Tanjiri et al. By this amendment, Applicant has amended Claim 1 to recite the limitations "the second partial optics have a curved material interface facing the user's eye, and wherein the diffractive optical unit of the second partial optics is located on the curved material interface." Support for this amendment may be found at, for example, page 6 lines 10-13 and Fig. 1 of the application as filed. These limitations are not taught or suggested in the Roberts or Tanjiri references either separately or in combination.

The diffractive optical unit (hologram element 22), as disclosed in Tanjiri, is always formed on a planar surface. As depicted in Fig. 2 of Tanjiri, hologram element 21 is formed on the planar surface of prism 21. See paragraph 37, in particular at page 3, right column, Lines 1-2. Referring to Figs. 4-6, hologram elements 22, 22L and 22R are also formed on flat surfaces. Paragraph 50 explicitly states that hologram elements 22L and 22R are easily formed since they are formed on flat surfaces. Thus, Tanjiri teaches away from the invention as recited in amended claim 1. The consequence of forming all of the hologram elements on planar optical surfaces is that the overall optics of the Tanjiri device must be very complicated. For example, referring to Fig. 6 of Tanjiri,

prisms 13R, 13L and prisms 21R, 21L must have mutually compensating configurations. This adds great complexity when using curved prisms as depicted in Fig. 6.

In contrast, the present invention, as claimed in amended claim 1, forms the diffractive optical unit 8 of the second partial optics 3 on the curved material interface facing the user's eye. This allows the use of simple, inexpensive, readily commercially available lens elements for the correction of refractive errors. It is only necessary to add the diffractive optical unit on the inner curved surface of the lens. Tanjiri neither discloses nor suggests such an approach.

The Roberts reference discloses that a HMD is formed by reflection from the inner side of a spherical visor. This is entirely unlike the present invention since neither the visor nor any other structure disclosed in Roberts provides for refractive correction of the user's visual deficiencies as recited in amended claim 1. The reflection from the visor to direct light to the user's eye precludes the introduction of corrective lenses as part of the HMD itself. Thus, one of ordinary skill in the art would not be motivated to form a diffractive optical unit on a curved material interface facing the user's eye for correction of visual deficiencies of the user wearing the HMD device as now claimed in amended claim 1.

Therefore, amended claim 1 is patentable over the art of record in the application. Claims 2-12 and 14 depend from claim 1 and should be patentable for at least the same reasons as claim 1. Applicant respectfully requests that the Examiner withdraw the rejection.

CONCLUSION

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

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